

PLASTIC RACE MATERIAL	
POM (acetal)	- used in the majority of Sarnatech BNL bearings - excellent bearing performance - and impervious to water
PP (polypropylene)	good chemical resistance
UHMWPE (polyethylene)	excellent chemical resistance
PBT (polyester)	radiation and chemical resistance
PA6:12 (nylon)	chloride resistance
PEEK (polyetheretherketone)	higher temperature applications

CHEMICAL STABILITY					
Chemical	POM	PP	PBT	PA6:12	PEEK
detergents	A	A	A	A	A
chlorides	C	A	B	B	B
fuels, oils, greases	A	A	A	A	A
brake fluid	A	A	A	B	A
alkalis pH(9)	A	A	C	B	A
bleach	B	A	B	B	A
organic acids	C	A	B	C	A
inorganic acids	C	A	B	C	A
alcohols	A	A	A	A	A
aliphatic hydrocarbons	A	A	A	A	A
aromatic hydrocarbons	A	A	B	A	B
ketones	B	A	C	B	A
acetone	A	A	C	A	A

Codes: A= Suitable B= Dependant on concentration C= Unsuitable

BALL MATERIAL		
Material	Hardness (HRC)	Main areas of use
Carbon Steel AISI 1010-1016	60 min	- with acetal races in dry applications - cost conscious products
Carbon Chrome Steel AISI 52100	60 to 67	- with steel races - heavily loaded, dry applications
Stainless Steel Martensitic AISI 420	52 to 56	- damp applications - mild detergents
Stainless Steel Austenitic AISI 316	25 to 39	- corrosive applications - non-magnetic
POM (acetal)	n/a	- wet or non-magnetic conditions - electrically insulated applications
Glass	n/a	highly corrosive applications

BORE (mm)		
Minimum	Maximum	General tolerance
0	19	+0.10 -0.00
19	25	+0.15 -0.00

OUTSIDE DIAMETER & BEARING CLEARANCE (mm)			
Minimum	Maximum	General tolerance	Diametral clearance
0	25	+0.00 -0.10	0.05 0.15
25	50	+0.00 -0.15	0.05 0.15
50	100	+0.00 -0.20	0.10 0.20

WIDTH (mm)	General tolerance ± 0.12
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(note: these guidelines may be changed, they depend on bearing design and tool configuration)



Sarna Kunststoff

Sarnatech BNL belongs to the Swiss group, Sarna Kunststoff Holding AG – specialists in the processing and application of polymeric materials. Within this group the Sarnatech Division concentrates on the development and manufacture of technically demanding moulded thermoplastic parts, over half of which are supplied to the European automotive market. This association benefits Sarnatech BNL by providing them with the exceptional technical and purchasing strength required by leading international OEMs.

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